

PATENT

Atty. Docket No. YOR920030184US1 (8728-625)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Howard Hao Chen et al.

SERIAL NO.: Not Yet Assigned

FILED: Concurrently Herewith DATED: September 12, 2003

FOR: COOLING SYSTEM FOR A SEMICONDUCTOR DEVICE AND  
METHOD OF FABRICATING SAME

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:


Pursuant to Applicant(s) duty of disclosure, the information listed in the attached form PTO-1449 is brought to the attention of the Examiner. Copies of the listed items are enclosed.

The citation of the listed items is not a representation that they constitute a complete or exhaustive listing of the relevant art or that the references are prior art.

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CERTIFICATION UNDER 37 C.F.R. § 1.10

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this date September 12, 2003 in an envelope as "Express Mail Post Office to Addressee" Mail Label Number EV329488129US addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

  
Michael F. Morano

The items listed are submitted in good faith, but are not intended to substitute for the Examiner's search. It is hoped, however, that in addition to apprising the Examiner of these particular items, they will assist in identifying fields of search and in making as full and complete a search as possible.

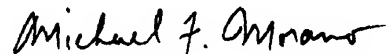
The filing of this information disclosure statement is not an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b).

- ☒ This information disclosure statement is being filed concurrently with the application.
- ☐ This information disclosure statement is being filed concurrently with the Request for Continued Examination (RCE) attached herewith
- ☐ This information disclosure statement is being filed within three (3) months of the date of entry of the national stage as set forth in 37 C.F.R. §1.491 in an international application.
- ☐ To the best of Applicant(s) knowledge, this information disclosure statement is being filed before the date of mailing of a first Office Action on the merits in connection with this case.
- ☐ Statement under 37 C.F.R. § 1.97(e):  
I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than 3 months prior to the filing of this statement.
- ☐ Enclosed herewith is a petition under 37 C.F.R. §1.97(d)(ii).
  - ☐ Enclosed by check is the petition fee of \$130.00. 37 C.F.R. §1.17(i)(1))

- ☐ Please charge the \$130.00 petition fee to Deposit Account No. 50-0510/IBM (Yorktown Heights).
- ☐ Enclosed by check is the \$180.00 fee required by 37 C.F.R. §1.17(p).
- ☐ Please charge the \$180.00 fee required by 37 C.F.R. §1.17(p) to Deposit Account No. 50-0510/IBM (Yorktown Heights).
- ☒ Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. §1.16 and/or §1.17 at any time during the pendency of this application, or credit any overpayment of such fee(s) to Deposit Account 50-0510/IBM (Yorktown Heights). Also, in the event any extensions of time for responding and/or a petition under 37 C.F.R. §1.17(i)(i) are required for the pending application(s), please treat this paper as a petition to extend the time and/or enter this Information Disclosure Statement as required and charge Deposit Account No. 50-0510/IBM (Yorktown Heights) therefor. TWO (2) COPIES OF THIS SHEET ARE ENCLOSED.

The claims of the application as now presented are believed to patentably distinguish over the prior art and to be in condition for allowance. Early and favorable consideration of the case is respectfully requested.

Respectfully submitted,



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| Form PTO-1449<br><br>U.S. DEPARTMENT OF COMMERCE<br>PATENT AND TRADEMARK OFFICE<br><br>INFORMATION DISCLOSURE<br>STATEMENT BY APPLICANT<br><br>(Use several sheets if necessary) | ATTY. DOCKET NO.           | SERIAL NO.       |
|  | YOR920030184US1 (8728-625) | Not Yet Assigned |
|  | APPLICANT                  |                  |
|  | Howard Hao Chen et al.     |                  |
|  | FILING DATE                | GROUP ART UNIT   |
|  | Concurrently Herewith      |                  |

## U.S. PATENT DOCUMENTS

| EXAMINER<br>INITIAL |  | DOCUMENT<br>NUMBER | DATE     | NAME            | CLASS | SUBCLASS | FILING DATE<br>IF APPROPRIATE |
|---------------------|--|--------------------|----------|-----------------|-------|----------|-------------------------------|
|                     |  | 5,154,661          | 10/13/92 | Higgins         | 62    | 3.3      | 7/10/91                       |
|                     |  | 5,259,737          | 11/9/93  | Kamisuki et al. | 417   | 322      | 7/2/91                        |
|                     |  | 5,313,094          | 5/17/94  | Beyer et al.    | 257   | 622      | 1/8/92                        |
|                     |  | 5,569,950          | 10/29/96 | Lewis et al.    | 257   | 467      | 11/28/95                      |
|                     |  | 5,753,529          | 5/19/98  | Chang et al.    | 437   | 67       | 5/19/95                       |
|                     |  | 5,757,081          | 5/26/98  | Chang et al.    | 257   | 788      | 2/20/96                       |
|                     |  | 5,759,014          | 6/2/98   | Van Lintel      | 417   | 413.3    | 1/12/95                       |
|                     |  | 5,767,578          | 6/16/98  | Chang et al. q  | 257   | 717      | 4/19/96                       |
|                     |  | 6,080,608          | 6/27/00  | Nowak           | 438   | 151      | 8/6/98                        |

## FOREIGN PATENT DOCUMENTS

|  |  | DOCUMENT<br>NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION |    |
|--|--|--------------------|------|---------|-------|----------|-------------|----|
|  |  |                    |      |         |       |          | YES         | NO |
|  |  |                    |      |         |       |          |             |    |

## OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

|  |  |  |
|--|--|--|
|  |  | Larry Gilg et al., "Die Products: ideal IC packaging for demanding applications", Electronic Design, December 23, 2002, pp. 47-50.                     |
|  |  | M. Armacost et al., "Plasma-etching processes for ULSI semiconductor circuits", IBM J. Res. Develop., Vol. 43, No. 1/2, January/March 1999, pp. 39-72. |

|  |                 |
|--|-----------------|
| EXAMINER   | DATE CONSIDERED |
| * EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |                 |

(Form PTO-1449 [6-4])